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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,425	07/13/2004	Stefano Olivieri	IT 020003	9914

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EXAMINER

RIZK, SAMIR WADIE

ART UNIT PAPER NUMBER

2133

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/501,425	<b>Applicant(s)</b> OLIVIERI ET AL.	
	<b>Examiner</b> Sam Rizk	<b>Art Unit</b> 2133	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/13/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### ***DETAILED ACTIONS***

- Claims 1-18 have been submitted for examination
- Claims 1-18 have been rejected

### ***Drawings***

1. Figures 2 and 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

2. Claims 1-18 are objected to because of the following informalities:
  - **Reference characters** are used in several of the claims.  
Reference characters are not acceptable in the claim language and must be replaced with clear and succinct limitations.  
Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 17 and 18 are rejected under 35 U.S.C. 101 because the claim invention is directed to non-statutory subject matter. Each limitation in claims 17 and 18 comprises an abstract algorithm that can be carried by hand or computer software program element and is not tangibly embodied. Abstract algorithms are non-statutory. **Un-executed Computer programs are non-statutory.** As for claim 18, **saving computer program written in word document and stored on a computer readable media does not make it statutory.**

Claim 17 cites:

- **A signal format** for use in transmitting a coded data stream comprising:
  - a first partition (56) coded with a first code rate a partition detector (50) and
  - a second partition (60) coded with a second code rate (R2); ( R1 ) said partition detector code rates. indicating both the first and the second

Signal format is non-statutory subject matter that is not tangible.

***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 and 10-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Vilander et al. US publication no. 2004/0010609 A1 (Hereinafter Vilander).

3. In regard to claim 1, Vilander teaches;

- Method of coding a coded data stream, the coded data stream comprising at least one high level data packet having partitions of data(56,62,68) requiring different protection rates, comprising the step of:

(Note: sections [0065] and [0066] in Vilander).

- inserting a partition detector (50) between two such partitions, in order to provide guidance for coding the partitions with different protection rates (78).

(Note: Fig. 4A reference characters (144-146) and section [0065], lines (6-9) in Vilander).

4. In regard to claim 2, Vilander teaches;

- Method according to claim 1, further comprising the step of generating a partition detector (80).

(Note: Fig. 4A, reference character 142 and section [0067] in Vilander).

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5. In regard to claim 3, Vilander teaches;

- Method according to claim , where the partition detector includes a trigger (52; 58; 64) and a code rate field (54; 60; 66).

(Note: section [0065], line 6 in Vilander).

6. In regard to claim 10, Vilander teaches;

- Method according to claim 1, wherein there are at least three partitions and a partition detector is inserted between every partition.

(Note: Fig. 4A in Vilander)

7. In regard to claim 11, Vilander teaches;

- Method of decoding a coded data stream comprising the steps of:
- receiving a coded data stream including at least one low level data packet having at least two partitions (56, 62, 68) coded with different code rates (92), extracting information from at least one partition detector (52) inserted between two partitions in the low level data packet (93), and decoding the different partitions with different code rates (R1, R2, R3) based upon code rate information extracted from the partition detector (94).

(Note: sections [0070]

8. Claims 12-14 are rejected for the same reasons as claim 11.

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9. In regard to Claim 15, Martini et al. US publication no. 2002/0158781 A1

(Hereinafter Martini) teaches;

- A device for coding a coded data stream having at least one high level data packet including partitions (56, 62, 68) of data requiring different protection rates (R1, R2, R3) comprising:
- a partition detector inserter (108) for inserting said partition detector between two such partitions, in order to provide guidance for coding the partitions with different protection rates.

(Note; Fig. In Martini)

10. In regard to claim 16, Martini teaches;

- A device for decoding a coded data stream having at least two low level data packets including partitions (56, 62, 68) of data having different protection rates (R1, R2, R3) comprising:
- a controller (120) for reading partition detector information (50) inserted between two such partitions, and a decoder (118) for decoding the two partitions at two different protection rates obtained from the partition detector.

(Note: Fig. 5 in Martini).

11. Claims 17 and 18 are rejected for the same reasons as claim 1.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vilander as applied to claim 4 above, and further in view of Heinzelman et al. US patent no. US 6754277 B1 (Hereinafter Heinzelman).

12. In regard to claim 4, Vilander teaches all the limitations in claim 3, However, Vilander does not explicitly teach the specific details of coding MPEG-4 FEC packet structure including;



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- Method according to claim 3, wherein the code rate field gives information regarding the code rates to be used for the two partitions.

Heinzelman et al. in an analogous art of error protection for compressed Video teaches the method of data partition of MPEG-4 video code rate information.

(Note; Figures 4 and 12-14 and col. 9, lines (25-65) in Heinzelman)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Vilander with the teaching of Heinzelman by including the specific details of coding **MPEG-4 data partitioning** with the teaching of Vilander **XTP protocol**. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized the advantages of more efficient channel coding that Heinzelman would have provided the means for transport of robust MPEG-4 on the IP network.

13. In regard to claim 5, Heinzelman teaches

- Method according to claim 4, wherein the code rate field is a unique identifier of the transition from a first code rate to be associated with a first of the partitions to a second code rate associated with the second of the partitions.

(Note: col. 9, lines (55-68) and col. 10, lines (1-13) in Heinzelman).

14. In regard to claim 6, Heinzelman teaches;

- Method according to claim 1, further comprising the step of generating low-level data packets including the high-level data packet as payload (86).

(Note: Fig. 5 and col. 9, lines (1-25) in Heinzelman)

15. In regard to claim 7, Vilander teaches;

- Method according to claim 6, further comprising step of coding the low level data packets with the different code rates (R1, R2, R3) determined by the partition detector (88).

(Note: Figures 4 and 5 in Heinzelman)

16. Claim 8 is rejected for the same reasons as claim 7.

17. In regard to claim 9, Heinzelman teaches;

- Method according to claim 7, further comprising the step of sending the coded low-level data packets to a receiving device (90).

(Note: Figure 2 in Heinzelman)

***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Krishnarajah et al. US publication no. 2003/0081592 A1 teaches method for transporting different classes of data bits in a payload over a radio interface.
- Zimmermann et al. US publication no. 2004/0132442 A1 teaches unequal error protection in a packet transmission system.
- Samaras et al. US publication no. 2004/0233903 A1 teaches unequal error protection for packet switched networks.
- Shiomoto Patent no. 6289485 B1, teaches method for adding and encoding error correcting codes and its device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Rizk whose telephone number is (571) 272-8191. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

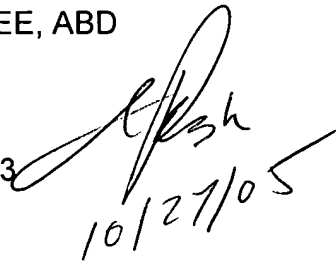
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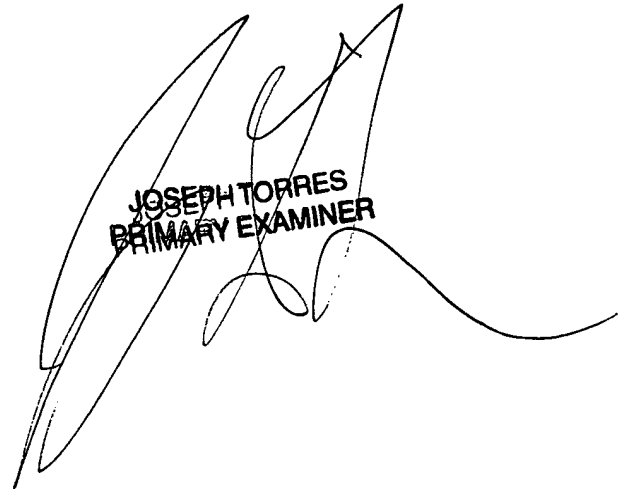
Sam Rizk, MSEE, ABD

Examiner

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10/27/05



JOSEPH TORRES  
PRIMARY EXAMINER